NATIONAL TRANSPORTATION SAFETY BOARD

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IN RE:

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THE EL FARO INCIDENT OFF THE: NTSB Accident No.

COAST OF THE BAHAMAS ON : DCA16MM001

OCTOBER 1, 2015

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INTERVIEW OF: MICHAEL BRENNAN, SECOND ENGINEER

Thursday,

October 8, 2015

Jacksonville, Florida

BEFORE:

BRIAN YOUNG, NTSB

JIM FISKER-ANDERSEN, TOTE Services

MICHAEL MILLER, ABS LOUIS O'DONNELL, ABS

U.S. Coast Guard

LEE PETERSON, TOTE Services

AL SHEPHERD, ABS

PRESENT ON BEHALF OF THE INTERVIEWEE:

GILBERT FELTEL, ESQ., Tanner Bishop

This transcript was produced from audio provided by the National Transportation Safety Board.

1	P-R-O-C-E-E-D-I-N-G-S
2	(11:45 a.m.)
3	MR. YOUNG: Okay. We're recording. It's
4	11:45 on Thursday, October 8th. This is Brian Young.
5	I'm the Engineering Group Chairman for the National
6	Transportation Safety Board.
7	We're interviewing Second Engineer Michael
8	Brennan, who is the Off Duty Engineer from the El Faro.
9	And we're going to go around the room and introduce all
10	of the attendees at the interview.
11	MR. O'DONNELL: Louis O'Donnell, Assistant
12	Chief Surveyor, ABS.
13	, U.S. Coast Guard
14	on the Engineering Group.
15	MR. SHEPHERD: Al Shepherd, American Bureau
16	of Shipping. I deal with manual systems certification.
17	MR. PETERSON: Lee Peterson, Director of
18	Marine Services with TOTE Services.
19	MR. FISKER-ANDERSON: Jim Fisker-Anderson,
20	Director of Marine, Commercial, TOTE Services and the
21	NTSB Engine Act Team (phonetic).
22	MR. FELTEL: Gilbert Feltel, counsel for Mr.
23	Brennan.
24	MR. YOUNG: And if you would introduce
25	yourself and spell your last name for the record,

1 please? 2 MR. BRENNAN: Michael Brennan, Second 3 Engineer Off Duty with the El Faro, B-R-E-N-N-A-N. MR. YOUNG: Great. Do you go by Mike? 4 5 MR. BRENNAN: That's fine. 6 MR. YOUNG: Okay. Thank you for being here. 7 We really appreciate you coming down and supporting our fact finding mission for this investigation. 8 9 If you could just start and tell us a little background about your maritime training and your 10 11 previous employment, prior to joining the El Faro. And 12 maybe tell us when you did join the El Faro and when 13 you got off. 14 I went to, graduated from MR. BRENNAN: 15 Maine Maritime Academy in 2012. Immediately out of school I worked for (inaudible). I did one trip on the 16 17 Bro Hawaii (phonetic), a small tanker over in Japan. 18 After that, I came to SeaStar Tow, and I 19 worked on the El Faro. I can't give you an exact time 20 It's about three years I've been in, three 21 years I've been with SeaStar. 22 MR. YOUNG: Can we help you? 23 MR. MILLAR: With ABS. 24 MR. YOUNG: Okay. 25 MR. MILLAR: Sorry to barge in, but --

MR. MILLAR: (Inaudible). MR. YOUNG: This is being recorded, so for the record, can you introduce MR. MILLAR: Mike Miller, the District Principal for Southeastern USA. MR. YOUNG: Thank you. MR. BRENNAN: When the El Morro was retired, I transferred over to the El Faro, and I did one or two trips this third, and then I upgraded to second and did one trip as second. And that was, my last tour was nine weeks ago when I got off. MR. YOUNG: Okay. So maybe if you try to remember what dates. Let's talk about the Seastar experience. So the first time you ever worked with Seastar, you were aboard the El Morro? MR. BRENNAN: Yes. MR. YOUNG: As third? MR. BRENNAN: Yes, and that would have been, oh close to December 2012. I'm not sure the exact month. MR. YOUNG: And how many trips did you do on El Morro as third? MR. BRENNAN: I can't recall. MR. BRENNAN: I can't recall. MR. YOUNG: More than one?	1	MR. YOUNG: Okay.
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MR. BRENNAN: I can't recall.	22	MR. YOUNG: And how many trips did you do on
	23	El Morro as third?
MR. YOUNG: More than one?	24	MR. BRENNAN: I can't recall.
11	25	MR. YOUNG: More than one?

1	MR. BRENNAN: Yes.
2	MR. YOUNG: Okay. And how many trips did
3	you do on the El Faro?
4	MR. BRENNAN: I believe I did two as third
5	or one as third and then one as second.
6	MR. YOUNG: Okay. Going way back in history
7	to Maine Maritime Academy, what sort of training and
8	experience did Maine Maritime provide you for steamship
9	for your steam license?
10	MR. BRENNAN: I actually had some pretty
11	substantial steam training at school. We had a very
12	nice up to date steam lab. I had Steam 1 and Steam 2
13	classes. And we also had a boiler class. So I had
14	plenty of substantial steam training at school. Then I
15	also did my cadet shipping on a steam ship, too.
16	MR. YOUNG: Did you? Okay. Do you know,
17	recollect about how long of a trip you did as a cadet
18	on a steamship?
19	MR. BRENNAN: It was like 61 days, I
20	believe.
21	MR. YOUNG: Two months?
22	MR. BRENNAN: Yes.
23	MR. YOUNG: And when you got out of Maine
24	Maritime, what license did you get?
25	MR. BRENNAN: Third System Engineer
ı	

Unlimited, Motor, Steam, Gas. I have my gas turbine 1 2 endorsement, too. 3 MR. YOUNG: And what license do you currently hold? 4 5 MR. BRENNAN: Second Engineer, Steam and the 6 Third for Motor, Gas Turbine and Steam. 7 MR. YOUNG: Have you done any third engineer time as a diesel, on a diesel ship? 8 9 MR. BRENNAN: Yes, the first ship when I got 10 out of school, 93 days. 11 MR. YOUNG: But mostly steam? 12 MR. BRENNAN: Yes. But the training ship at 13 school was diesel, too, so I have had diesel experience 14 before that though. 15 MR. YOUNG: Okay. So as a second engineer 16 aboard El Faro, can you explain what you do on a daily 17 basis, what your watch schedule is and what your 18 responsibilities are? 19 MR. BRENNAN: Daily basis, I stand the four day watch, so it starts 3:45 in the morning. Get off 20 21 for breakfast. Then I have my maintenance PM period 22 from 8:00 until noon. Then I get a four break, and 23 then I stand my 4:00 to 8:00 watch at night. Anything over that's overtime. 24 25 MR. YOUNG: Anybody else on watch with you?

1	MR. BRENNAN: I have an oiler, an unlicensed
2	guy I'm watching with, yes.
3	MR. YOUNG: And during the watch, what are
4	some of the activities that happen?
5	MR. BRENNAN: Transfer fuel twice a day,
6	blow tubes in the morning, blow tubes at night, basic
7	rounds, make sure everything is running all right.
8	Something happens, assess the, assess what's ever going
9	on. Find the problem.
LO	If I can't fix it, call someone down to
L1	help. But I haven't had any major problems on my
L2	watches. Everything's run smooth. I'm very confident
13	in that engine room.
L 4	MR. YOUNG: When you're transferring fuel,
15	you pump it from a holding, a deep tank into a settler?
16	MR. BRENNAN: Yes.
L7	MR. YOUNG: Is that the standard
18	MR. BRENNAN: Yes.
19	MR. YOUNG: daily operation? How many
20	settlers do you have?
21	MR. BRENNAN: Just one.
22	MR. YOUNG: One settler?
23	MR. BRENNAN: Yes.
24	MR. YOUNG: Is it located on the port, or
25	starboard side?

1	MR. BRENNAN: Let me orientate myself in the
2	engine room. It's on the port side.
3	MR. YOUNG: And is there a high and low
4	suction?
5	MR. BRENNAN: Yes.
6	MR. YOUNG: Okay. At sea, do you ever
7	switch high and low suction, or do you always
8	MR. BRENNAN: No.
9	MR. YOUNG: What do you use all the time?
10	MR. BRENNAN: I use the high suction.
11	MR. YOUNG: Always high suction?
12	MR. BRENNAN: Yes.
13	MR. YOUNG: Do you recall what fuel you use?
14	MR. BRENNAN: I believe it's Bunker C
15	(phonetic). I'm not sure exactly what the specs of it
16	are.
17	MR. YOUNG: And do you bunker frequently?
18	MR. BRENNAN: Once a week.
19	MR. YOUNG: Every week?
20	MR. BRENNAN: Yes.
21	MR. YOUNG: Do you know about how much fuel
22	you take weekly?
23	MR. BRENNAN: Anywhere between 3400. We've
24	taken 4500 barrels, depending on the load and depending
25	on how much fuel we're going to burn.

1	MR. YOUNG: And is the fuel typically loaded
2	into the same tanks weekly, or is it changing?
3	MR. BRENNAN: We've been, last time I was
4	on, we used the three tanks, three port, three
5	starboard. Anything over that, we use the twos.
6	MR. YOUNG: And is there a standard location
7	that you transfer from to feed the settlers?
8	MR. BRENNAN: Yes, from the threes.
9	MR. YOUNG: You always use the threes?
10	MR. BRENNAN: Yes.
11	MR. YOUNG: I know it's been months and
12	months since you've been on, but do you know
13	approximately how much fuel the ship carries?
14	MR. BRENNAN: No recollection, sorry.
15	MR. YOUNG: Okay. So on a daily basis, you
16	pump fuel out of the threes into the settler. You have
17	a high suction pumping, transferring the fuel into the
18	boilers
19	MR. BRENNAN: Yes.
20	MR. YOUNG: from the settler.
21	MR. BRENNAN: Yes.
22	MR. YOUNG: A single settler. Okay. The
23	second engineer is historically known as the boiler
24	guy. Would you say that's still technically correct?
25	You run that boiler.

1	MR. BRENNAN: Yes.
2	MR. YOUNG: Okay. Do you do the boiler
3	water testing?
4	MR. BRENNAN: Yes.
5	MR. YOUNG: How frequently do you do that?
6	MR. BRENNAN: Once a day in the morning
7	during my 4:00 to 8:00 watch.
8	MR. YOUNG: Everyday?
9	MR. BRENNAN: Yes.
10	MR. YOUNG: Okay. And where do you record
11	the results for the boiler water test results?
12	MR. BRENNAN: It goes in the Drew Marine in
13	the computer, and I also have it down on paper.
14	MR. YOUNG: The Drew Marine. Do you ever
15	email the Drew Marine spreadsheet to the office?
16	MR. BRENNAN: I don't. It goes to the
17	chief, and then he handles it.
18	MR. YOUNG: Okay. And you fill out the Drew
19	Marine daily?
20	MR. BRENNAN: Yes.
21	MR. YOUNG: And how often, I'm sorry, do you
22	send it to the chief?
23	MR. BRENNAN: It's on the same computer
24	system in the, on the ship. And the chief is the one
25	that emails it to the Drew Marine.

1	MR. YOUNG: Okay. So is it on a shared
2	server then?
3	MR. BRENNAN: Yes.
4	MR. YOUNG: So he could access the file?
5	MR. BRENNAN: Yes.
6	MR. YOUNG: And he could email it. And
7	again, I know you got off in August, but did you see
8	anything when you were doing your boiler water testing
9	anything that was out of the ordinary for your boiler
10	water?
11	MR. BRENNAN: No.
12	MR. YOUNG: What do you typically test for
13	with your boiler water?
14	MR. BRENNAN: Daily tests, chlorides, pH,
15	total dissolved solids, you put me on the spot here.
16	MR. YOUNG: Sorry.
17	MR. BRENNAN: There's five daily tests.
18	Geez, I have to think. It's been a while. I've been
19	home for nine weeks, so all right, chlorides, pH, total
20	dissolved solids, amerzine, hydrazine. And what's the
21	fifth one?
22	MR. YOUNG: I don't think there's anybody in
23	this room that could remember all the boiler test, but
24	though the important thing is that it is tested daily
25	and there was nothing out of the ordinary

MR. BRENNAN: Nothing out of the ordinary. 1 2 MR. YOUNG: -- that you were, okay. 3 MR. BRENNAN: All the chemicals were in range when I got off the ship. 4 5 Thanks good. When you MR. YOUNG: Okay. 6 are on watch, the boilers are at sea, do you typically run two boilers? 7 MR. BRENNAN: 8 Yes. MR. YOUNG: Should there be a need to 9 10 increase steam production, what is the process to say 11 cut it (inaudible). Is it automatic, or is it manual? 12 MR. BRENNAN: At that point, I'm looking at 13 fuel pressure. I mean, we don't want to max out any 14 more than 205 pounds. That's about the max on that. 15 Other than that, I mean you max out, once 16 you max out on oxygen, you're maxed out on fuel. 17 to a certain point. It depends on how hard you want to 18 push the boilers. 19 MR. YOUNG: So if you were running on one burner and you needed to go to a second burner, how 20 21 would that increase of firing take place? Would it, 22 would you have to manually start another? 23 MR. BRENNAN: Yes. 24 MR. YOUNG: You would? MR. BRENNAN: 25 There's no automatic

1	sequencing involved.
2	MR. YOUNG: Okay. What type of automation
3	is there on the boilers?
4	MR. BRENNAN: Water levels, steam flow,
5	temperature, (inaudible). Everything's automated.
6	It's all
7	MR. YOUNG: So when you say automated, let's
8	say, take the first one, water level. How is the water
9	level automated?
10	MR. BRENNAN: The water level controls
11	itself automatically. I mean we have the Yokogawas, so
12	I mean it's pretty, everything's up to date. It's not
13	like
14	MR. YOUNG: So if the water level drops in
15	the boiler, what will the automation do, increase the
16	feed pump?
17	MR. BRENNAN: It's going to increase the
18	water in the boiler.
19	MR. YOUNG: By adjusting
20	MR. BRENNAN: Via the feed pump.
21	MR. YOUNG: Okay.
22	MR. BRENNAN: And then feed water regulator
23	valve.
24	MR. YOUNG: Okay. And is that what the
25	Yokogawa does?

1	MR. BRENNAN: Yes.
2	MR. YOUNG: What is a Yokogawa?
3	MR. BRENNAN: It's a small computer screen
4	that gives you readouts on the pressures, temperatures
5	and levels.
6	MR. YOUNG: Okay.
7	MR. BRENNAN: It's like a little mini
8	computer I guess.
9	MR. YOUNG: Okay. So it receives an input -
LO	-
11	MR. BRENNAN: Yes.
L2	MR. YOUNG: and then it puts an output to
13	the feed pump, which changes the amount of water going
L 4	to the boiler?
15	MR. BRENNAN: Yes.
16	MR. YOUNG: Okay. Have you ever been aboard
L7	when there has been any testing of some of the
18	shutdowns on the boiler?
19	MR. BRENNAN: Yes. Last trip we did, all
20	the boiler failsafes, and I couldn't go through the
21	entire list. It's all written down.
22	MR. YOUNG: Okay. One of the boiler alarms
23	and shutdowns that we're interested in looking at is
24	the low low water shutdown. So if you start to run out
25	of water in the boiler, it's going to shut itself down.

Do you know if there's any sort of a time delay on the 1 2 low low water shutdown? 3 MR. BRENNAN: I'm not sure. 4 MR. YOUNG: Okay. And the boilers, I think 5 we were told in a previous, and do you run at 900 psi. 6 Is that correct? 7 MR. BRENNAN: 860. MR. YOUNG: 860 psi. And I didn't get the 8 9 exact date, but just for further questions this is 10 important. But when do you think is the first time you 11 ever came aboard El Faro, even as third? 12 MR. BRENNAN: I honestly don't know. 13 would have been after the El Morro got scrapped, I went 14 home for five weeks and then came right back to the El 15 Faro. 16 So whatever five weeks after the El Morro 17 got, I got off the week before they brought it to 18 Brownsville (phonetic). And then I went to the El 19 Faro, when we were in North Florida. 20 MR. YOUNG: Okay. And we were there for 14 days 21 MR. BRENNAN: 22 before we actually took it out. I'm not sure. 23 24 MALE PARTICIPANT: Well that would have 25 been, because we had to have the fructose (phonetic).

It would have been towards the end of 2013. 1 2 MR. BRENNAN: Sounds about right. 3 MALE PARTICIPANT: Yes. MR. YOUNG: Okay. So since the end of 2013, 4 5 you've been pretty much specifically working on El 6 Faro? 7 MR. BRENNAN: Yes. Okay. Perfect. 8 MR. YOUNG: Thank you. 9 Since you've been aboard the ship say for about two years on and off, you ever had any issues with the 10 11 boiler that would have affected the ability to operate 12 properly? 13 MR. BRENNAN: No. 14 MR. YOUNG: No issues whatsoever? No had to 15 shut it down? It never failed on you? 16 MR. BRENNAN: No. 17 MR. YOUNG: While we're talking about 18 boilers, I'll start just passing around the table if 19 anyone has any boiler or steam questions while we're on the boiler. 20 21 MR. O'DONNELL: Lou O'Donnell, ABS. You 22 said the last trip you were on, so this is 23 approximately say two months, two and a half months ago you guys did all the boiler automation, all the trips, 24 25 shutdowns, high and low water and everything. Were you

1 present when that happened? 2 MR. BRENNAN: Yes. 3 MR. O'DONNELL: Was there ABS, (inaudible) 4 or a Coast Guard present when this happened? 5 MR. BRENNAN: No. We just did it for 6 ourselves to know that it worked. 7 MR. O'DONNELL: Okay. So through your PM 8 system you were --9 MR. BRENNAN: Yes. 10 MR. O'DONNELL: -- doing this? 11 Another question, when you do your regular blow downs, 12 if you do the continuous blow, I imagine you don't do 13 this --MR. BRENNAN: Once a month. 14 15 MR. O'DONNELL: Yes, do a continuous blow 16 When you do a good bottom blow, maybe when you're 17 in port, I don't know if you have a procedure. 18 when you give the boiler a good blow, do you test all 19 your low water alarms, test your low, low low, go all 20 the way down to the low low to cut your fires and --21 MR. BRENNAN: I have never tested the low 22 low one, but we do low and high every time. 23 basically when I do my bottom blow import, I'll fill 24 the boiler up until I get the high alarm. And then

I'll start blowing down, and I'll blow down until I get

25

1 the lower one. 2 So you only blow down MR. O'DONNELL: Okay. 3 as far as the low. Okay. You stated the operating pressure was 860 psi. Do you remember was that pretty 4 5 normal? Did different chiefs possibly have, I mean I 6 know they can adjust with the open valve PLC controls. 7 You can adjust steam pressure even at super heated temperature and all that, kind of dial in what 8 9 they want. Do you know if different chiefs or different firsts like to operate the boiler at high or 10 11 lower pressures, you know, maybe say between 850 and 12 900? 13 MR. BRENNAN: No. It's always been at 860 14 every trip I've been on with both chiefs. 15 MR. O'DONNELL: Okay. Thank you. In your time onboard, 16 17 U.S. Coast Guard, has there been any major maintenance 18 performed on the boiler that you know of? 19 MR. BRENNAN: Maybe a couple super heater 20 had old plugs. That's about it, but I don't really 21 consider that major maintenance. 22 The Okigawa (phonetic) unit --23 MR. BRENNAN: Yokogawa. 24 Yokogawa, is that what it is? 25 MR. BRENNAN: Yes.

1	The unit, does that record
2	alarms? Does it get a history of any type or anything,
3	or does it just tell you or
4	MR. BRENNAN: I don't think so.
5	So it's just a visual indicator,
6	panel, trying to understand what it is.
7	MALE PARTICIPANT: PID controller. Wouldn't
8	you say?
9	(Simultaneous speaking)
10	So is there any other recording
11	in the engine room that saves any type of alarm or
12	anything?
13	MR. BRENNAN: I'm not sure.
14	All right. Any common alarms
15	that you had, any like pattern of alarms or anything
16	that were
17	MR. BRENNAN: Nothing that would have
18	(inaudible).
19	(Inaudible).
20	MR. BRENNAN: No.
21	Okay. Thank you.
22	MALE PARTICIPANT: My question's, or I'll
23	relay it to the board of course, but at some point
24	they're going to get, later there's going to be
25	(inaudible). And some of these questions that can wait

and ask later. You want to (inaudible) that kind of --1 2 MR. YOUNG: Keep it to the boiler world, if 3 you don't mind. MALE PARTICIPANT: Okay. What I'll just 4 5 explain, I'm just briefly trying to get into some of 6 the (inaudible) and maintenance and training and that 7 sort of thing. So I'll just ask when we get to general 8 settings. 9 MR. YOUNG: Okay. Just introduce yourself 10 please into the microphone. 11 MR. MILLAR: It's Michael Millar with ABS. 12 Question, the boiler alone, what, where does it sound, what does it sound like? Is it distinct from other 13 14 alarms? 15 MR. BRENNAN: Boiler alarm is, a normal 16 general alarm, well, not the general one. 17 normal alarm on the panel is just going to be a 18 constant sound. If there's a major or a boiler alarm 19 specific to one of the boilers, it's an anh, anh, anh. So it's like a pulsating alarm. 20 21 MR. MILLAR: So it's definitely distinct and 22 can be heard? 23 It's very distinct. MR. BRENNAN: Yes. MR. MILLAR: And it can be heard throughout 24 25 the engine room?

1	MR. BRENNAN: Yes.
2	MR. MILLAR: Are there automation alarms in
3	the living quarters tied to boiler alarms, and do they
4	go off as well?
5	MR. BRENNAN: The, I believe the only alarm
6	we have there in the living quarters is the all call
7	alarm, and that's just like an all, everything hits the
8	fan. Ring that, and it'll ring everyone on deck.
9	MR. MILLAR: Okay. And does that need to be
10	activated by the person on watch?
11	MR. BRENNAN: It gets activated from the
12	console, yes.
13	MR. MILLAR: Okay. Are there any other
14	activation points in the engine room?
15	MR. BRENNAN: For the all call alarm, no.
16	MR. MILLAR: Has there been any history of a
17	flare pack?
18	MR. BRENNAN: Not when I've been onboard,
19	no.
20	MR. MILLAR: And are you conducting any fuel
21	switching operations while the vessel is underway?
22	MR. BRENNAN: No.
23	MR. MILLAR: So you're using one consistent
24	fuel?
25	MR. BRENNAN: Yes.

1	MR. MILLAR: Off the top of my head, I
2	probably have more. I just haven't gotten to them yet.
3	MR. YOUNG: Jim, you all set?
4	MR. FISKER-ANDERSON: No further questions
5	for (inaudible).
6	MR. YOUNG: Okay. We may come back to the
7	boiler. We're just trying to keep it maybe system by
8	system so we're not firing totally random questions at
9	you. Okay? Maybe we'll move on from, unless there's
10	any other boiler questions, steam fuel.
11	Okay. I'll ask with fuel. Are you involved
12	with bunkering (phonetic)?
13	MR. BRENNAN: Yes.
14	MR. YOUNG: You are, and I know the ship
15	always has a sample, and are you aware of the company,
16	the barge who maintains samples of the fuel?
17	MR. BRENNAN: We maintain a sample for
18	every, I believe, 12 months we maintain samples.
19	MR. YOUNG: Onboard the ship?
20	MR. BRENNAN: Yes.
21	MR. YOUNG: Okay. Have you ever had any
22	issues with water in the fuel or contaminants in the
23	fuel that
24	MR. BRENNAN: No.
25	MR. YOUNG: affected your boilers? On

1	your normal watch, you have an OMU. What is the
2	function of the OMU?
3	MR. BRENNAN: OMU makes a round, takes down
4	the numbers, round every hour, walk around just keeping
5	an eye on things. If he notices anything out of the
6	ordinary that I haven't already noticed, lets me know.
7	He's just pretty much there as an extra set of eyes.
8	MR. YOUNG: And it's just the two of you on
9	watch together?
10	MR. BRENNAN: Yes.
11	MR. YOUNG: And once he gives you your
12	numbers, do you put the numbers into a
13	MR. BRENNAN: I put them in the log book,
14	yes.
15	MR. YOUNG: Okay. And how does that get, is
16	that done electronically?
L 7	MR. BRENNAN: No, it's all written.
18	MR. YOUNG: And from there, how does the
19	chief get those numbers?
20	MR. BRENNAN: I bring the log book up at
21	noon every day, and the chief does his noon reports and
22	gets all his numbers.
23	MR. YOUNG: Okay. And I think the noon
24	report gets sent in to the company.
25	MR. BRENNAN: Yes.

MR. YOUNG: Okay. When you are working 1 2 overtime from 8:00 to 12:00, what do you typically do 3 on your overtime period? I guess it depends on what 4 MR. BRENNAN: 5 needs to be done on the PMs, feed pump maintenance, 6 change the oil, change the filters. I mean --7 MR. YOUNG: Would you say that your maintenance that you do during overtime period is based 8 9 on the AMOS (phonetic) system? 10 MR. BRENNAN: Yes. 11 MR. YOUNG: Okay. And do you have your own 12 sign in for AMOS and you have a list of jobs based on 13 your position? 14 MR. BRENNAN: Yes. 15 MR. YOUNG: So as a second engineer, it's 16 going to come up with a bunch of work to do. 17 you determine which of those jobs to do each day? 18 MR. BRENNAN: The first engineer will 19 delegate to me what needs to be done and what's more 20 prominent or what's the word I'm looking for, what 21 needs to be done first. And then from there, I'll go 22 on and then I'll get the important jobs done first. 23 And then I'll go on to secondary jobs. 24 And once I get the jobs done, I report to 25 the first. He'll put it in the computer and then go

from there. And it's usually once a month, and once my 1 2 list is done, then I'll move on to other things. 3 MR. YOUNG: Okay. So at the end of a maintenance period, let's say you worked on the feed 4 5 pump and it's complete, you don't enter any maintenance 6 history into the computer. Someone else does it? 7 MR. BRENNAN: Yes. 8 MR. YOUNG: Okay. Do you get a printout 9 from paper of what to do? 10 MR. BRENNAN: Yes. 11 MR. YOUNG: So the first will print out, and 12 you'll work for the day and hand you --13 MR. BRENNAN: Yes. 14 MR. YOUNG: -- a bunch of paperwork. 15 the job is complete, you give him the paper back. enters everything in AMOS. 16 17 MR. BRENNAN: Yes. 18 MR. YOUNG: Okay. Have you ever had any reason to use AMOS? 19 I check it myself just to 20 MR. BRENNAN: No. 21 look at updates just to see what I'm looking at in the 22 future for like maybe like look a month in advance to 23 know what I need to prepare for. 24 MR. YOUNG: Do you do any ordering in AMOS, 25 parts?

1	MR. BRENNAN: No.
2	MR. YOUNG: What if you did need a part in
3	some project you're working on?
4	MR. BRENNAN: I tell the first, and he tells
5	the chief.
6	MR. YOUNG: Okay. Have you ever had an
7	issue where you need parts, and you've told the first
8	or chief and you have not received them?
9	MR. BRENNAN: No.
10	MR. YOUNG: Is the turnaround time
11	relatively quick for parts?
12	MR. BRENNAN: Yes.
13	MR. YOUNG: What if, how would it go about
14	that if in AMOS you are starting to fall behind in your
15	jobs. Would you know about it via AMOS, or would
16	someone tell you?
17	MR. BRENNAN: I'd know about it immediately.
18	MR. YOUNG: Immediately.
19	MR. BRENNAN: Because I know. I look at, I
20	get the full month's list in AMOS in advance. So I
21	know exactly what needs to be done, and then I'll plan
22	my month around that depending on boiler cleaning and
23	blow down and stuff like that.
24	MR. YOUNG: Okay.
25	MR. BRENNAN: If I'm falling behind, which

1	hasn't happened, I'll know in advance.
2	MR. YOUNG: Are simple daily tasks in AMOS,
3	such as testing the boiler water? Is that a daily
4	entry that has to be put into AMOS?
5	MR. BRENNAN: I don't enter that in AMOS,
6	no. And that goes in the Drew Marine.
7	MR. YOUNG: Okay. So it's not connected to
8	AMOS?
9	MR. BRENNAN: No. And then anything else I
10	do outside of AMOS gets entered into a log book.
11	MR. YOUNG: The same log book that you put
12	your numbers in?
13	MR. BRENNAN: Yes.
14	MR. YOUNG: Okay.
15	MR. BRENNAN: Such as like blowing tubes,
16	transferring fuel, stuff like that.
17	MR. YOUNG: Okay. When you're at sea, how
18	much fuel do you transfer?
19	MR. BRENNAN: When I'm, when I was onboard,
20	I like to keep it, I'd fill it up to around twelve,
21	1250 barrels in the settler tank. And then I'd never
22	let it get below 800 when I'm at sea.
23	MR. YOUNG: So you would transfer from
24	something above 800 and wouldn't go above 1250?
25	MR. BRENNAN: Yes.

1	MR. YOUNG: So about
2	MR. BRENNAN: 1250, 1300 depending on
3	MR. YOUNG: So about 400 pounds?
4	MR. BRENNAN: Roughly, 400, 500, somewhere
5	around there.
6	MR. YOUNG: Is there a little alarm in the
7	settler?
8	MR. BRENNAN: Yes. It's right around, it's
9	450 I believe. It might even be a little higher.
10	MR. YOUNG: Okay. So just in terms of AMOS
11	maintenance, PMS, if anyone else has any other
12	questions. We'll go around the table.
13	MALE PARTICIPANT: No further questions.
14	Coast Guard. Was
15	there a lot of deferred maintenance that you were aware
16	of? Did you have overdue maintenance or anything being
17	deferred until the shipyard (phonetic)?
18	MR. BRENNAN: No, not that I know of.
19	Okay. Thank you.
20	MALE PARTICIPANT: When you say you maintain
21	your fuel level at the range that you were saying, is
22	that the established shipboard policy, or is that just
23	something you did as a
24	MR. BRENNAN: It's shipboard policy. It's
25	whatever the chief tells me to do pretty much.

MALE PARTICIPANT: And how was that 1 2 communicated? How do you know that's the, what you're 3 expected to do? 4 MR. BRENNAN: Can you reword that? 5 MALE PARTICIPANT: So you do that? So you 6 go onboard. 7 MR. BRENNAN: Yes. 8 MALE PARTICIPANT: And you're, well let me 9 ask you this. 10 MR. BRENNAN: We have the chief engineer's 11 standing orders. 12 MALE PARTICIPANT: Okay. Good, good. And 13 give me an example of some of the things that might be 14 in there. Let me just do a AMOS. Okay. So just for 15 that aspect, like with the (inaudible) thing. 16 MR. BRENNAN: So like an example of a chief 17 engineer's standing orders for the second engineer, it 18 goes through everything. And it'll be, it gives you 19 the boiler shutdown and startup procedure for blow down and what they require for that. That would be one 20 21 example. 22 When they want you to blow tubes twice a 23 day, that would be an example, except for when we come 24 into port. I won't blow tubes in the morning if we're 25 coming in early.

1 MALE PARTICIPANT: Okay. So it's 2 communicated through the chief --3 MR. BRENNAN: Yes. 4 MALE PARTICIPANT: -- of your standing 5 orders. Thank you. No further questions. 6 MALE PARTICIPANT: 7 MR. YOUNG: Okay. Great. Is any of your 8 maintenance related to work on the turbo generators or 9 the main turbines or the reduction gear set, the 10 propulsion set? 11 MR. BRENNAN: No. 12 MR. YOUNG: No? 13 MR. BRENNAN: Not at a second, no. 14 MR. YOUNG: Okay. Who would be the person 15 that would do work on say the production gear? 16 MR. BRENNAN: The first engineer is the 17 overall overseer of the generators and all that stuff. 18 But the third engineers will do, they'll clean the 19 coolers and the 12:00 to 4:30 engineer will purify the 20 oil in the offline generator once a month. 21 And he's in charge of the Mobil oil 22 purifiers and that stuff. But anything, any main like 23 the high speed coupling, low speed coupling for the 24 generators, the first will oversee all that. 25 charge of that --

1	MR. YOUNG: Okay.
2	MR. BRENNAN: depending on who the chief
3	is and how confident he is, which is with our crew, I'm
4	very confident in our crew and the chief and first.
5	And everything gets done in a timely manner, and we're
6	a very tight knit crew. Get things done, kept the ship
7	running great.
8	MR. YOUNG: Good. Did you ever have any
9	issues with the turbo generators in terms of failures,
10	alarms not operating properly on your time of the ship?
11	MR. BRENNAN: No.
12	MR. YOUNG: Any issues with the generators?
13	MR. BRENNAN: No.
14	MR. YOUNG: How about the emergency
15	generator? I know it's testing monthly from what we
16	heard, but any issues with that on the monthly test?
17	MR. BRENNAN: No.
18	MR. YOUNG: When it was tested monthly, we
19	understand through a previous interview, someone would
20	sort of break it down below, kill the power up to the
21	generator. How does that
22	MR. BRENNAN: Two hour load test.
23	MR. YOUNG: Two hour load test. How does
24	that generator start? Is it hydraulic, or is it
25	battery?

1	MR. BRENNAN: It's hydraulic.
2	MR. YOUNG: It's hydraulic. Is that
3	something that's checked, is the hydraulic pressure
4	accumulator at any
5	MR. BRENNAN: I don't have any part in that,
6	so.
7	MR. YOUNG: Okay. Had you ever heard of any
8	problems with the emergency generator whatsoever
9	MR. BRENNAN: No.
10	MR. YOUNG: or seen any issues with it?
11	Okay.
12	MR. BRENNAN: Actually, now that I think
13	about it again, how the emergency generators started,
14	can I scratch that answer
15	MR. YOUNG: Sure.
16	MR. BRENNAN: and say I'm not sure?
17	MR. YOUNG: Yes. Kind of brings us into
18	the, you brought us into a nice way into the crew, the
19	rest of the crew on there. The chief that is on is
20	Richard?
21	MR. BRENNAN: Pusatere.
22	MR. YOUNG: Pusatere. Can you describe your
23	working relationship with him, and have you worked with
24	him
25	MR. BRENNAN: Yes. I've worked for him a

bunch. 1 2 MR. YOUNG: -- for an extended period of 3 time? A bunch? Would you say you worked --(Simultaneous speech) 4 5 MR. YOUNG: -- or the other chief? 6 MR. BRENNAN: I've worked with James 7 Robinson a little bit more, but I mean I get time with both. But I'm very confident in Rich. He's very 8 9 confident in everything he knows. He's very 10 meticulous. 11 He has steps for everything, and I love 12 working for the guy because he's very sure about everything he does. And he's very confident. I have 13 14 full confidence in him as a chief engineer. 15 MR. YOUNG: How would you describe, let's 16 talk about the chief, Rich Pusatere, his safety culture 17 and the way he transmits safety to your department. 18 MR. BRENNAN: Safety? 19 MR. YOUNG: Yes. 20 MR. BRENNAN: He's very safe. That's one of 21 the things that he's very, that's one of the things 22 he's, safety always, safety's always first. 23 MR. YOUNG: And how do you know, why, what 24 makes you say that? 25 MR. BRENNAN: Many times before we do jobs,

anything, it's always, we always talk about it first. 1 2 We'll have a meeting and go through things and make 3 sure everyone knows what their job is, what they're going to do and no one's confused. 4 5 If anything happens, they know what to do. 6 And he always makes sure that whatever we're doing, 7 everyone is confident in their part of the job before 8 we even start. 9 MR. YOUNG: Are you required to have meetings prior to, like a toolbox talk? 10 11 MR. BRENNAN: I don't believe we're required 12 to, but we do as another safety precaution just so that 13 everyone's on the same page. 14 MR. YOUNG: When you did come aboard the 15 ship, speaking of crew and all, were you familiarized with your job area? 16 17 MR. BRENNAN: Yes. 18 MR. YOUNG: How did that take place? 19 MR. BRENNAN: I was actually familiarized with the second's job when I was sailing third, which 20 21 was nice because I got to go walk around with the 22 second engineer. 23 And I learned everything firsthand and actually got to touch things and knew how to not to 24

like, so that was very helpful. So when I came on, I

25

1	pretty much just walked right into the job and I knew
2	what to do so.
3	MR. YOUNG: And is there a formal process
4	for familiarizing new crew members into the engine
5	room?
6	MR. BRENNAN: Yes. And then so I guess if
7	we, if I was a new second engineer, I'd never sailed on
8	the ship, obviously you'd get the turnover notes. And
9	we'd take you down and show you around the principles
10	of everything.
11	But then we always have the first and the
12	chief and people who have always been on there, they'll
13	help you with anything you're not sure of.
14	MR. YOUNG: And are you required to complete
15	turnover notes after every rotation?
16	MR. BRENNAN: Yes.
17	MR. YOUNG: Are you required to send them to
18	anybody?
19	MR. BRENNAN: I always give the chief a
20	copy, and he critiques them, sends them back to me to
21	make sure I have everything in them.
22	MR. YOUNG: Speaking of critiquing, are you
23	ever critiqued formally?
24	MR. BRENNAN: Yes.
25	MR. YOUNG: I know you're probably critiqued

1	every day after watch, but is there a formal evaluation
2	for you?
3	MR. BRENNAN: We get the, at the end of
4	every tour, the chief engineer gives a personal
5	evaluation. And I believe that gets sent in to the
6	company as well. And then I get my own copy, too.
7	MR. YOUNG: And is that an extensive list
8	with a bunch of comments, or is it one checkbox?
9	MR. BRENNAN: It's a couple of checkboxes,
LO	and then there's a section for comments. And it's
11	pretty thorough. It goes through everything.
12	And it's, you could read one and pretty much
13	tell how competent the sailor is at his job and how
14	confident the chief is. And if he has any comments and
15	other things, he'll write them down.
16	MR. YOUNG: And do you evaluate anybody?
L 7	MR. BRENNAN: No.
18	MR. YOUNG: Do you know if the chief is
19	evaluated?
20	MR. BRENNAN: I'm not sure. I don't think
21	so.
22	MR. YOUNG: How frequently did you guys have
23	safety meetings?
24	MR. BRENNAN: How frequently we have safety
25	meetings, that's up to the captain. We have, we

always, we have a drill once every week. And then usually, I think once a month we'll do the drill, and we'll do a safety meeting.

But we've done multiple safety meetings per month. It depends on any incidents that's happened.

Give the crew a chance to talk back and get some feedback from the crew. But every drill we did every week was always very thorough.

We lowered the boats. We go through different scenarios, ran all the fire hoses, ran all that stuff. It was very thorough (inaudible), kind of annoying actually.

MR. YOUNG: And within the engine department, did you guys have an engine department safety meeting at any time?

MR. BRENNAN: We're pretty much, not specifically. I mean if we're going into like a big job and we got to move something around, and we got to do something big, we'll have a meeting before that but nothing too formally, unless you're talking like going into tanks and job hazard analysis forms and that stuff. That's required, so that gets done.

MR. YOUNG: And how are you made familiar with the SMS system, which includes per bits (phonetic) and risk analysis. Is there any sort of briefing on

that for you guys? 1 2 Yes. We actually, the whole MR. BRENNAN: 3 ship gets briefed on those during the safety meetings an goes over there. And actually everyone, so I get to 4 5 learn a little bit of the deck side. 6 And the guys on the deck side get a little 7 bit what goes on in the engine room with the permits and stuff. We pass the form around to see what they 8 look like. 9 10 MR. YOUNG: Okay. Have you ever been 11 involved with an audit for the SMS system? 12 MR. BRENNAN: We had an audit two tours ago. 13 I'm not sure. 14 MR. YOUNG: In general, the safety culture of the ship, in general, and the safety culture of the 15 engine department, how would you describe the safety 16 17 culture? Do you feel safe? 18 MR. BRENNAN: Immaculate. 19 MR. YOUNG: Immaculate. 20 MR. BRENNAN: I feel very comfortable, very safe on that vessel. 21 22 MR. YOUNG: Okay. Good to hear. If you did 23 have a safety concern where you felt like you weren't

being treated right, is there any way for you to relay

this to the office?

24

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MR. BRENNAN: Yes. Call, I believe the 1 2 designated person ashore is Captain John Lawrence. 3 that still? MR. YOUNG: 4 Yes. 5 MR. BRENNAN: Yes. So if there was a 6 situation I have on the ship and I couldn't get it 7 resolved with the crew, then I could always call the designated person ashore and then go from there. 8 9 there's, really never had any problems. We're all a 10 pretty tight knit crew. Everything works out great. 11 MR. YOUNG: Okay. I'll pass it around. 12 We're talking about personnel, safety management 13 system, safety meetings. 14 MALE PARTICIPANT: No further questions from 15 me. 16 MALE PARTICIPANT: Nothing. 17 MR. SHEPHERD: So you already described 18 briefly, Mike, when you came onboard you went through, 19 someone come onboard had to get some indoctrination. All right. So following somebody's been onboard and 20 21 then you say you've been off for nine weeks now? 22 MR. BRENNAN: Yes. 23 MR. SHEPHERD: If you were to go back, is there anything you have to go through before they put 24 25 you back on watch?

MR. BRENNAN: For my job in particular, the 1 2 second engineer, we have also a working list. 3 everyday, that's another, I forgot to say that for like the AMOS and PMS stuff and PMs, but everyday when I do 4 5 something, I'll log into the computer. 6 And I'll put the dates, so I did so and so. 7 I did so and so, and so when the next second engineer comes on, he can go back and look and see exactly 8 what's been done and when it was done and when it needs 9 10 to be done again. 11 MR. SHEPHERD: Thanks. Let me, and I forgot 12 to mention. This is Al Shepherd with ABS on the record 13 again. Sorry. 14 MR. BRENNAN: So records of everything being 15 done, very, yes. 16 MR. SHEPHERD: Good. You mentioned about 17 having a tight knit crew. That's good. Most of the 18 (inaudible) we've been on both kinds of crews, so it's 19 good to have a crew we can have that. 20 MR. BRENNAN: It's good. I enjoy coming 21 back to the ship because I love the guys I work with. 22 MR. SHEPHERD: Right. What do you think 23 instills that kind of tight knitness? 24 MR. BRENNAN: I'm not sure. I guess when 25 you have a good running engine room, everything runs

good. Everybody has their job. It gives us time to 1 2 really become more than just coworkers. 3 You can focus on getting to know each other a little better and then go from there. And just 4 5 everybody kind of just meshes. 6 MR. SHEPHERD: You think you have good 7 support and connection with shore side aspect of the 8 company? 9 MR. BRENNAN: Yes. MR. SHEPHERD: All right, so you have the --10 11 MR. BRENNAN: Yes. 12 MR. SHEPHERD: -- free to communicate or 13 feel like it's good communication --14 (Simultaneous speaking) 15 MR. BRENNAN: Yes. MR. SHEPHERD: And safety meetings, is there 16 17 some kind of group discussion as well. Maybe just you 18 said that there were, you had critiques of the drills 19 but also you had some things that you went over 20 (inaudible). Just talk about a typical safety meeting. 21 MR. BRENNAN: Yes. So usually, the typical 22 safety drill, we get the general alarm. We'll all go 23 meet in the galley, and then we'll get, we'll figure out from there what we're going to do, if we're going 24

to do, what type of drill it will be, so which hoses

25

we're going to run out if it's going to be like a paint 1 2 locker fire. 3 If it's going to be an engine room fire, figure out what needs to be done. Then we'll go assess 4 5 that and bring all the hoses out, dual connections, CO2 6 and all that stuff. 7 And then after that, we'll wrap that up. And then we'll go run the fire pumps, the general 8 9 emergency fire pump, and then we'll run a couple hoses 10 And then once a month you run the sprinkler pump 11 as well. 12 We had to run extra hoses out for that. ₩e 13 also have the anchor washes open. And then the aft 14 clear (phonetic), that we'll come up and we'll lower 15 the boats, bring the boats back. And then after everything is done, then 16 17 we'll go back into the galley. And we'll have a 18 meeting and discuss what we did and if anything went 19 wrong. And then everyone will have a chance to talk. 20 And then we'll go over any pressing issues. It's very

MR. SHEPHERD: Where would these discussions take place?

MR. BRENNAN: In the crew galley.

MR. SHEPHERD: Okay. Usually it was the

thorough.

21

22

23

24

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captain who was leading the discussion? 1 2 MR. BRENNAN: Yes. The captain, well, the 3 chief may usually discuss and then captain will come in 4 and recap everything at the end. 5 MR. SHEPHERD: And besides the drills and 6 critiquing the drills, what other kind of safety issues 7 were brought up? 8 MR. BRENNAN: I mean we didn't really have 9 any safety issues. 10 MR. SHEPHERD: Were there ever indications 11 where something happened with another vessel in the 12 fleet, and then you were getting words from --13 MR. BRENNAN: Yes, we've had that a couple 14 times, just anything else going on in the fleet and 15 what we can do to not do the same thing. 16 MR. SHEPHERD: Right. 17 MR. BRENNAN: What's that, near miss 18 reports? 19 MR. SHEPHERD: Yes, right. Okay. Good. 20 And how about, I'm going to jump down to the toolbox 21 talks, the talks you have. The chief led those quite 22 often or the first? 23 MR. BRENNAN: Depends on what, how big the 24 job is. I mean either one of them, they're both very 25 confident in each other. It's whatever needs to be

1	done. I mean if it's something really, if it's a
2	really important job and everybody's involved, then
3	we'll all get down and get in a meeting and figure out
4	what's going on before we actually do it.
5	MR. SHEPHERD: Okay. What kind of, I'm
6	trying to tie it to the safety management system.
7	Yours was computer based?
8	MR. BRENNAN: Yes, I believe.
9	MR. SHEPHERD: It wasn't paper based, right?
LO	It was bulky?
11	MR. BRENNAN: No.
12	MR. SHEPHERD: You could go on the computer
13	and
L4	MR. BRENNAN: Yes.
15	MR. SHEPHERD: And there were a variety of
16	things that dealt with standard shipboard operations?
L 7	MR. BRENNAN: Yes.
18	MR. SHEPHERD: Can you hit on some of those?
19	MR. BRENNAN: Can I pass on that question?
20	MR. SHEPHERD: Sure.
21	MR. BRENNAN: I mean it's a vast majority of
22	things, so I'd have to really look at it.
23	MR. SHEPHERD: Right. I guess what I'm
24	trying to get is just you can pass certainly. I'm not
25	here to try to push something on you. I guess what I

was trying to get to is your level of familiarity with 1 2 the safety manuals. Were you conversant with it? Were 3 you given any kind of training --MR. BRENNAN: Yes. 4 5 MR. SHEPHERD: -- to use the safety manuals? 6 MR. BRENNAN: Yes. 7 MR. SHEPHERD: Can you just describe some of 8 that? Was it computer based training as part of your, 9 that's if you had some? It's not required. It's just 10 if you have it. Different companies do things, same 11 things different ways. 12 MR. BRENNAN: I guess I'm kind of lost on 13 this question. I don't know. 14 MR. SHEPHERD: All right. I'm going to stop 15 here. Thank you, Michael. MR. MILLAR: You've been able to access the 16 17 safety management system, right, on the computer? 18 MR. BRENNAN: Yes. 19 MR. MILLAR: So you look up like a job 20 description? 21 MR. BRENNAN: Yes, I can, because you have 22 the computer up on the, on our engineering deck. And 23 then we also have a computer down in the engine room and the control console. 24 25 MR. MILLAR: And if you wanted to search for

1	something, was there a search feature?
2	MR. BRENNAN: Yes.
3	MR. MILLAR: So you magically control
4	(Simultaneous speech)
5	MR. BRENNAN: Yes, pretty much from the, and
6	from any one of the computers on the ship.
7	MR. MILLAR: By the way, this is Mike Millar
8	of ABS asking him questions. Can I ask a couple
9	questions about the boiler?
10	MR. YOUNG: Sure.
11	MR. MILLAR: Okay. You've got two main
12	boilers?
13	MR. BRENNAN: Yes.
14	MR. MILLAR: How many burners each?
15	MR. BRENNAN: Three in each boiler.
16	MR. MILLAR: And is there any time, would
17	you always run both boilers or
18	(Simultaneous speech)
19	MR. BRENNAN: Yes, both boilers are always
20	running.
21	(Simultaneous speech)
22	MR. BRENNAN: we need to shut down, or if
23	we have to leave on one boiler and do some major
24	maintenance or something.
25	MR. MILLAR: Okay.

1	MR. BRENNAN: But both boilers are always
2	running, yes.
3	MR. MILLAR: Okay. So you would only take a
4	boiler down for major maintenance?
5	MR. BRENNAN: Or routine maintenance, like
6	if I'm blowing down.
7	MR. MILLAR: Okay. Is it, was there any
8	guides to run one boiler only for any particular reason
9	other than taking the other boiler down for
10	maintenance?
11	MR. BRENNAN: Can you rephrase that?
12	MR. MILLAR: For example, if I want to run
13	on one boiler just because I want to save fuel.
14	MR. BRENNAN: No.
15	MR. MILLAR: Okay. All right. And back to
16	the, no, I think that's it. That's good. Thank you.
17	MR. YOUNG: Anything else with SMS, safety
18	management system?
19	MR. O'DONNELL: I just have, Lou O'Donnell,
20	ABS, one question. When you were onboard, how did you
21	see the relationship between the captain, the chief
22	engineer, deck and engine?
23	You talk about the engine crew. I don't
24	know if you were just referring to the engine crew as a
25	tight knit group usually. But did the deck and the

1	engine crew mesh together very well?
2	MR. BRENNAN: Yes, very well.
3	MR. O'DONNELL: Okay. That's it then.
4	MR. BRENNAN: We eat at the same tables in
5	the galley.
6	MR. O'DONNELL: Great.
7	MR. BRENNAN: We see each other all day.
8	Everybody got along very well.
9	MR. O'DONNELL: Great. Good.
10	MR. BRENNAN: And I never saw any physical
11	or verbal altercations between the chief and the
12	captain. They always got along great. Sorry.
13	MR. O'DONNELL: Good. No, thank you.
14	MR. SHEPHERD: Can I ask one more? Al
15	Shepherd again for ABS. Mike, you mentioned about the
16	DPA, and you mentioned his name. How often did you see
17	him?
18	MR. BRENNAN: Say it again.
19	MR. SHEPHERD: Designated person ashore. He
20	came to the ship often?
21	MR. BRENNAN: Every once in a while, I mean
22	when we're in Jacksonville, yes. I've seen him a
23	couple times, but usually when he's onboard I'm either
24	in the engine room or in my bunk sleeping.
25	MR. SHEPHERD: All right. Okay. Yes,

because of your watch schedule. 1 2 MR. BRENNAN: Yes. 3 MR. SHEPHERD: So the company does internal audits of the ships. Have you ever been involved in 4 5 any of those? 6 MR. BRENNAN: We had an internal audit right 7 before we had our COI inspection. MR. SHEPHERD: And who was the auditor from 8 9 the company? 10 I can't recall. MR. BRENNAN: 11 MR. SHEPHERD: Okay. All right. Good. 12 MR. YOUNG: Okay. It's Brian Young with the 13 NTSB again. Talking about people, we understand as Lou 14 asked about, the relationship between the captain, the 15 chief and the engine department, deck department. you ever work with Captain Davidson? 16 17 MR. BRENNAN: Yes. 18 MR. YOUNG: You did. And did you ever have 19 any interaction with him, or could you describe his 20 personality and his demeanor? 21 MR. BRENNAN: Very upbeat guy, very nice, 22 easy to talk to. I mean I've sailed with captains that just sit in their office, and they're really grumpy. 23 And they don't want to talk. 24 25 He's very personable with everybody.

1	great guy to sail with. If there was any problems, he
2	was always there. Feel free to go in his office and
3	talk anytime.
4	MR. YOUNG: And were there ever any issues
5	with the captain in terms of maneuvering the ship or
6	MR. BRENNAN: No.
7	MR. YOUNG: hitting anything, running to
8	ground or anything that you've ever heard of?
9	MR. BRENNAN: No.
10	MR. YOUNG: We understand that a good
11	portion of time they have a riding crew aboard your
12	ship. Were you ever aboard when they had the Polish
13	riding gang aboard?
14	MR. BRENNAN: No, I wasn't, not that I can
15	recall.
16	MR. YOUNG: No. Did you have any riding
17	gangs aboard with you?
18	MR. BRENNAN: Yes, Jeff Mathias (phonetic).
19	He was a former chief. He was on the Greatland, and he
20	was a chief on the Morro at first in the Morro as well.
21	And he was doing a survey for the Alaska conversion, I
22	believe, yes.
23	MR. YOUNG: So Jeff was board?
24	MR. BRENNAN: Yes.
25	MR. YOUNG: By himself or with a crew?

MR. BRENNAN: The last time when I was 1 2 onboard, he was by himself. 3 MR. YOUNG: What was he looking into, doing to the ship? 4 5 MR. BRENNAN: Before I got off, they were 6 working on the ramp deicing system, and they just got 7 the buttersworth (phonetic). And he was working on piping schemes and figuring out what he needed and 8 9 getting the list compromised or comprised. 10 MR. YOUNG: So you never had any interaction 11 with the riding gang whatsoever? 12 MR. BRENNAN: 13 MR. YOUNG: Okay. 14 Actually, I take that back. MR. BRENNAN: 15 didn't have any interaction, but I believe he might 16 have had one or two guys with him. I was just busy 17 running around, so I didn't really notice. 18 MR. YOUNG: Okay. One of the questions from 19 one of our other groups about the ship itself was a watertight door. Do you know if there's any watertight 20 21 doors between three hold and the engine room or any of 22 the cargo holds and the engine room? 23 MR. BRENNAN: Are you talking coming from --MR. YOUNG: Any of the cargo holds. 24 25 MR. BRENNAN: From the second deck or third

1	deck?
2	MR. YOUNG: Any deck to the engine room?
3	MR. BRENNAN: Yes. There's the big
4	watertight door on the second deck, and then you got to
5	go down. And then there's two watertight doors on both
6	sides of the bowling alley as well. So it would take a
7	lot for water to get down to the engine room.
8	MR. YOUNG: Okay.
9	MR. BRENNAN: That's a good question.
10	MR. YOUNG: Are those watertight doors
11	typically closed
12	MR. BRENNAN: Yes.
13	MR. YOUNG: at sea?
14	MR. BRENNAN: Yes.
15	MR. YOUNG: Okay. Are there any indicators
16	down below that would tell the status of the watertight
17	doors?
18	MR. BRENNAN: Yes, and they're testing every
19	month.
20	MR. YOUNG: Monthly.
21	MR. BRENNAN: Oh, wait. Sorry. Did you say
22	watertight door or bilge welds?
23	MR. YOUNG: Watertight doors.
24	MR. BRENNAN: No, there's no indicators for
25	the watertight doors. Sorry.

1	MR. YOUNG: Okay.
2	MR. BRENNAN: I thought you said bilge
3	welds.
4	(Simultaneous speaking)
5	MR. BRENNAN: I was just assuming you said
6	indicators.
7	MR. YOUNG: So you do have bilge floats
8	throughout the ship?
9	MR. BRENNAN: All cargo holds have bilge
10	welds, and they get tested every month.
11	MR. YOUNG: And is that recorded in AMOS?
12	MR. BRENNAN: No, I don't believe so. It's
13	just in the log book, and then they record it on the
14	bridge, too.
15	MR. YOUNG: Okay. And I guess we're going
16	to go to the sister ship tomorrow, so I'm going to try
17	not to bombard you with questions about how the El Faro
18	is set up. But a lot of people are concerned about the
19	watertight doors and the scuttles.
20	Apparently, one of the scuttles had, was
21	described as popping open the night at sea on the El
22	Faro, between second deck and third deck is what we
23	understand. Are you familiar with the scuttles between
24	the car decks?
25	MR. BRENNAN: The manholes on the port and

1	starboard side?
2	MR. YOUNG: Is that what they refer to as a
3	scuttle?
4	MR. BRENNAN: Yes.
5	MR. YOUNG: Okay. How are they actually
6	secured?
7	MR. BRENNAN: I believe, it's a handwheel.
8	They have four locking arms that when you turn the
9	wheel, the arms rotate, and they both get in the four
10	locking positions. So they're pretty well secured, so
11	I can't, once they're shut, they're shut.
12	MR. YOUNG: Are they easy to open if you
13	were underneath? Could you open it from underneath?
14	MR. BRENNAN: Yes. There's a wheel
15	underneath, too, as well.
16	MR. YOUNG: A wheel. Are they weighted, so
17	they would flip right up, or are they heavy?
18	MR. BRENNAN: They're very, very heavy.
19	MR. YOUNG: Could you do it and lift it?
20	MR. BRENNAN: Yes.
21	MR. YOUNG: From underneath?
22	MR. BRENNAN: Yes.
23	MR. YOUNG: Could I? There's no
24	counterweight?
25	MR. BRENNAN: Say it again.

1	MR. YOUNG: There's no counterweight on it
2	to assist it?
3	MR. BRENNAN: No.
4	MR. YOUNG: Okay. I'm going to pass it
5	around for any other general questions about the ship.
6	MALE PARTICIPANT: The watertight door
7	between third deck and the engine room, are you
8	familiar with that door?
9	MR. BRENNAN: The watertight door on third
10	deck or second deck?
11	MALE PARTICIPANT: Third deck.
12	MR. BRENNAN: On third deck?
13	MALE PARTICIPANT: Yes.
14	MR. BRENNAN: The big one?
15	MALE PARTICIPANT: The big one.
16	MR. BRENNAN: Yes.
17	MALE PARTICIPANT: There's a big watertight
18	door.
19	MR. BRENNAN: Yes.
20	MALE PARTICIPANT: How big is this door?
21	MR. BRENNAN: It's just about as tall as the
22	ship. I mean as tall as the deck.
23	MALE PARTICIPANT: Is it a soft patch, or is
24	it, I mean is it like a temporary opening or
25	MALE PARTICIPANT: He's talking about the

1	watertight doors that we actually run cargo through.
2	MALE PARTICIPANT: Oh, okay.
3	MALE PARTICIPANT: I think they're asking
4	about the watertight door that's the manned door or
5	they go next to the office there into three hole.
6	MR. BRENNAN: Okay.
7	MALE PARTICIPANT: That's what he's
8	referring to.
9	MR. BRENNAN: Okay. So what's the question
10	about it?
11	MALE PARTICIPANT: That door, do you know
12	what type of door it is, the manned door?
13	MR. BRENNAN: Actually, no. I'd have to
14	MALE PARTICIPANT: Okay. That's okay. No
15	further questions.
16	with the Coast Guard.
17	Do you keep any records with regards to anything that
18	goes onto the ship personally, outside of the official
19	log in the engine room? Do you have your own laptop,
20	or do you keep any type of spreadsheet or any type of
21	record of anything that you do?
22	MR. BRENNAN: Me personally?
23	Personally, yes, for your own
24	personal reference, to go back to or anything like
25	that.

1	MR. BRENNAN: Down in the engine room on the
2	engine room computer I log all my stuff that I get
3	done.
4	All right, but you don't have
5	like a laptop that you
6	MR. BRENNAN: No.
7	keep in your state room that
8	you bring home with you?
9	MR. BRENNAN: Well, I have a laptop in my
10	state room, but I don't log anything on it.
11	Okay.
12	MR. BRENNAN: I don't have anything. I just
13	use it for music.
14	All right. Did by any chance,
15	did you have any communications with anybody that's
16	onboard the ship? When were you scheduled to go back
17	onboard the ship?
18	MR. BRENNAN: I was scheduled to go back
19	this upcoming Tuesday.
20	So did you have any
21	communications with your counterparts or anybody about
22	the relief for the upcoming
23	(Simultaneous speaking)
24	any phone calls or anything?
25	MR. BRENNAN: I was very good friends with

1	the third engineer, Mike Holland, and I talked to him
2	every once in a while when he's port but just seeing
3	how he's doing and stuff.
4	And I got one communication with Howie via
5	cell phone giving me the friendly reminder that my two
6	week notice and ready to come back to the ship.
7	That's the worst email.
8	MR. BRENNAN: My response was all right.
9	I'll see you.
10	So in those conversations, was
11	there anything that came up about the weather or the
12	(inaudible) or anything, any concern?
13	MR. BRENNAN: No. I didn't even have any
14	idea until I got the call from Melissa what had
15	happened, and I was, after that it was all Internet and
16	speculation.
17	Any conversations about meetings
18	going on in the engine room
19	MR. BRENNAN: No.
20	any big jobs going on or
21	nothing?
22	MR. BRENNAN: No. It's the last thing I try
23	to think about when I'm on vacation.
24	So you mentioned earlier that
25	you had, you were onboard when they did the COI and

1	some of the surveys.			
2	MR. BRENNAN: Yes.			
3	Did you guys spend a lot of time			
4	preparing for the COIs when you knew they were coming?			
5	MR. BRENNAN: Yes. All the equipment got			
6	tested, and then during the particular COI, I was kind			
7	of, I was busy, so he went around with the chief			
8	engineer and did all that stuff.			
9	So you pretest all the equipment			
10				
11	MR. BRENNAN: Yes.			
12	before the COI?			
13	MR. BRENNAN: Everything's pretested to make			
14	sure everything works.			
15	All right, and during those			
16	pretests were there any deficiencies identified or			
17	anything			
18	MR. BRENNAN: No.			
19	that needed (inaudible) as a			
20	result?			
21	MR. BRENNAN: None that I know of, no.			
22	Okay. So would you say that the			
23	ship is maintained in continual compliance?			
24	MR. BRENNAN: Yes.			
25	It doesn't have any issues. All			

1	right. So also in your time there, was there anybody
2	in that engineering department that quit or was fired
3	for any reason?
4	MR. BRENNAN: No, not that I know of.
5	All right. That's it. I'm
6	good.
7	MALE PARTICIPANT: No further questions from
8	me. Thank you.
9	MALE PARTICIPANT: I'm okay. Thanks.
LO	MALE PARTICIPANT: I just, kind of following
L1	up on where Brian was with that, I'm just trying to
12	remember if, we know they weren't weighted. But did
13	they have any spring on them or anything (inaudible)?
L 4	MR. BRENNAN: I don't think they did. I'm
15	trying to remember the last time I had to climb down
16	there because the cargo was backed up to number three.
L 7	And I had to go around to check my fuel tanks.
18	MALE PARTICIPANT: Okay. Thanks.
19	MALE PARTICIPANT: No questions.
20	MR. YOUNG: Brian Young again, just a few
21	more follow up questions. When you are assigned on the
22	ship, are you given an email address to use to
23	communicate out?
24	MR. BRENNAN: I've never used it, no. I've
25	never gotten assigned an email address.

MR. YOUNG: How would you communicate to the 1 2 rest of the world while you're at sea? 3 MR. BRENNAN: I don't. MR. YOUNG: Would you be able to make a 4 5 phone call if you had to? 6 MR. BRENNAN: Yes, in an emergency, I could 7 use a satellite phone. Only in emergency? 8 MR. YOUNG: 9 MR. BRENNAN: Yes. 10 MR. YOUNG: Okay. Where would that be 11 located? 12 MR. BRENNAN: There's one in the bridge, and 13 there's also a phone in the office, in the engine room. 14 I'm not sure if that goes out, but I think it might 15 because it says don't touch. MR. YOUNG: So the line stays open? 16 17 MR. BRENNAN: Yes. 18 MR. YOUNG: Okay. Everything we've been 19 asking you is fact, fact, fact, fact. Everybody here at this table wants to try to figure out what's 20 21 wrong. It's our job to figure this out. 22 And if there's anything you can think of or 23 any ideas you have, you're the guy who's most familiar with the ship at this table. Is there any idea that, 24 25 any reason the ship could have lost propulsion or

1 power? 2 That's a really tough MR. BRENNAN: 3 question. Anything could have happened. There's nothing I can speculate on. I mean unless I talk to 4 5 someone that was on the ship and that knew what 6 happened, I have no idea. MR. YOUNG: Very little information. 7 Just I 8 don't --9 MR. MILLAR: I've got some questions. When you're out at see, you're on watch 4:00 to 8:00 when 10 11 it's quiet watch. Have you ever been out there when 12 the weather was really rough? 13 MR. BRENNAN: No. 14 MR. MILLAR: In bad conditions? 15 MR. BRENNAN: No. 16 I'm sorry. This is Mike MR. MILLAR: Okay. 17 Millar with ABS. I forgot the introduction. 18 MR. BRENNAN: I mean just to add on to that, 19 I've seen bad weather on the ship before. I mean it doesn't even feel like we're in bad weather, very 20 21 stable ships, very confident in things like --22 MR. MILLAR: And so when you're in this 23 rough weather and the ship's moving, do you hear a, 24 does the ship change like unusual noises? 25 MR. BRENNAN: No.

1	MR. MILLAR: Okay.		
2	(Simultaneous speaking)		
3	MR. BRENNAN: Maybe like swaying, maybe a		
4	little swaying cargo, like nothing just like a couple		
5	crates, nothing out of the ordinary.		
6	MR. MILLAR: Okay. That's very helpful.		
7	Thanks. Brian?		
8	MR. YOUNG: Yes, anybody else? Any wrap up		
9	questions, follow up questions?		
10	MALE PARTICIPANT: Just were every aware of		
11	any of the crew members that might have had their own		
12	personal satellite phone they used to communicate		
13	outside of the ship system?		
14	MR. BRENNAN: Not that I know of, no.		
15	MALE PARTICIPANT: Thank you.		
16	MR. YOUNG: You have any questions for us,		
17	anything we forgot to ask you, anything you want to		
18	add?		
19	MR. BRENNAN: If I was going to add		
20	something, I'd say I'm just really shocked it happened.		
21	And I wouldn't go back to work if I wasn't fully		
22	confident in that ship and the crew. So I still can't		
23	believe it happened.		
24	MR. YOUNG: Okay. Well, we'll go off		
25	recording. We'll end the interview. It's 12:43, and		

thank you very much for your time in coming here and being part of this. We appreciate all your information. (Whereupon, the above-entitled matter went off the record at 12:43 p.m.)

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CERTIFICATE

MATTER: El Faro Incident

Accident No. DCA16MM001

Interview of Michael Brennan

Jacksonville, FL

DATE: 10-08-15

I hereby certify that the attached transcription of page 1 to 73 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

NEAL R. GROSS

TABLE OF CORRECTIONS TO TRANSCRIPT OF INTERVIEW FOR MICHAEL BRENNAN TAKEN ON OCTOBER 8, 2015

Page Number	Line Number	Current Wording	Corrected Wording
3	16	inaudible	Maersk
3	17	Bro Hawaii	
3	18	SeaStar Tow	Ships Nanc "Bro Hawaii" Sea Star/TOTE
3	21	SeaStar	Sea Star
4	10	this	as
4	16	SeaStar	Sea Star
6	19 - 20	four day	four hour day
6	22	four break	four hour break
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28	3	pounds	barrels
30	15	production	reduction
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If to the best of your knowledge, no corrections are needed kindly circle the statement "no corrections needed" and initial in the space provided.

NO CORRECTIONS NEED					
Initial					
Michael T. Brenno	M				
Printed Name of Person providing the a	bove information				
Significant of the above	e information				
11/14/15					
Date					

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